



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,437	03/02/2002	Kimmo Laiho	004770.00033	3461
22907 7590 09/25/2007 BANNER & WITCOFF, LTD. 1100 13th STREET, N.W. SUITE 1200 WASHINGTON, DC 20005-4051			EXAMINER NGUYEN, TU X	
			ART UNIT 2618	PAPER NUMBER
			MAIL DATE 09/25/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/087,437

Applicant(s)

LAIHO ET AL.

Examiner

Tu X. Nguyen

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17, 19, 20 and 22-52 is/are pending in the application.
- 4a) Of the above claim(s) 18 and 21 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19, 20 and 22-30 is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-10, 12-17, 31-34, 36-38 and 40-52 is/are rejected.
- 7) ☒ Claim(s) 7, 11, 35 and 39 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8/9/07</u>  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

Applicant's arguments with respect to claims 1-17 and 31-52 have been considered but are not persuasive.

In response to Applicants argue "nowhere does Hanco teach or suggest that the transmission burst has a duration smaller than the duration of the first information", the Examiner disagrees, Hanco discloses "the different sources can each be awarded different duration of time, or time slices" (col.3 lines 44-45). Considering in fig. 1, there are 5 different sources uneven in the amount of bandwidth. Assuming the first source is twice large amount of data comparing to other sources, it will require multiple time slices to complete transmission the first source, as suggested by Hanco "a technique is needed to splice together data transmitted at the end of one time slice and data transmitted at the beginning of the subsequent time slice for the same source" (col.3 lines 55-59).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-10, 16-17, 31-34, 36-38, 40, 43-46 and 51-52, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanko et al. (US Patent 6,438,141) in view of Marko et al. (US Patent 6,876,835).

Regarding claims 1 and 31, Hanko et al. disclose a method comprising the steps of:

Receiving, at a mobile terminal (see col.6 lines 53-54), buffered data as a transmission burst in a time-slicing signal (see col.3 lines 43-50), the buffered data corresponding to a first portion of an information stream, said digital transmission burst having a duration smaller than the duration of said first portion of said information stream (see col.3 lines 44-50);

buffering said digital transmission burst in a receiver input buffer of the digital broadcast receiver (see col.15 lines 59-60).

Hanko et al. fail to disclose powering-up a digital broadcast receiver in the mobile terminal in synchronicity with the transmission of said digital broadcast transmission burst such that the mobile terminal is powered-up when said digital broadcast transmission burst is being received.

Marko et al. disclose powering-up a digital broadcast receiver in the mobile terminal in synchronicity with the transmission of said digital broadcast transmission burst such that the mobile terminal is powered-up when said digital broadcast transmission burst is being received (see col.8 lines 35-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hanko et al. with the above teaching of Marko et al. in order to

provide a wake-up features to automatically tune to a particular broadcast channel during the scheduled time forward a selected message of file to receive.

Regarding claim 2, the modified Hanco et al. fail to disclose a FIFO buffer, the Examiner takes an official notice that FIFO are all well known in the art as available buffer types of ROM and RAM.

Regarding claim 3, the modified Hanco et al. disclose buffered data comprises at least one of: a predetermined amount of said information stream and an amount of said information stream received during a predetermined time interval (see Hanco, col.3 lines 43-50).

Regarding claim 4, the modified Hanco et al. disclose said step of powering-up said receiver occurs a specified interval of time prior to said step of receiving (see col.8 Marko, lines 35-39).

Regarding claim 5, the modified Hanco et al. disclose said specified interval of time comprises a member of the group consisting of: a bit-rate adaptation time (see Hanco, col.9 lines 29-45), a receiver switch-on time (see Marko, col.8 lines 35-39), and a receiver acquisition time (see Marko, col.7 lines 19-35).

Regarding claims 6 and 10, the modified Hanco et al. fail to disclose returning said receiver to said powered-down mode/powered-up mode in response to the setting of a power-down flag/power-up flag, the Examiner takes an official notice that a logic or control signals in a wake-up/standby features are well know in the art as available indication of a wake-up/standby timer expire.

Regarding claims 8 and 36-38, the modified Hanks et al. disclose the step of powering-down said receiver a predefined interval of time subsequent to said step of powering-up said receiver (see Hanks, col.8 lines 30-39, "schedule" corresponds to a predetermined interval of subsequent powering-up and powering-down).

Regarding claim 9, the modified Hanks et al. disclose said predefined interval of time comprises a time interval greater than said duration of said transmission burst (see Hanks, col.3 lines 44-49).

Regarding claim 16, the modified Hanks et al. disclose receiving a second buffered data as a second digital broadcast transmission burst, said second digital broadcast transmission burst having a duration smaller than the duration of said portion of said second information stream, wherein the second buffered data comprises a portion of a second information stream (see Hanks et al., col.11 line 40 through col.12 line 58).

Regarding claims 17 and 44, the modified Hanks et al. disclose the transmission burst and said second transmission burst are multiplexed produce a time-division multiplexed signal (see Hanks, col.3 lines 32-42).

Regarding claim 32, the modified Hanks et al. disclose a first usage factor of the service input buffer is used to determine a second usage factor associated with the mobile terminal (see Hanks, col.11 line 40 through col.12 line 57).

Regarding claim 33, the modified Hanks et al. disclose the second usage factor is used to control a start-up time of the digital broadcast receiver such that said digital

broadcast receiver receives said transmission burst with a minimum of delay (see Marko, col.8 lines 30-39).

Regarding claim 34, the modified Hanks et al. disclose at least one service provided the information service provided via at least one information stream (see Hanks, fig.1 elements 103-106).

Regarding claim 40, the modified Hanks et al. disclose an application processor forward converting said transmission burst into an information data stream (see Marko, col.6 line 8 through col.7 line 5).

Regarding claim 43, the modified Hanks et al. disclose a second information service input buffer forward storing at least an interval of second streaming information provide by a second information service provider; wherein said transmitter system broadcasts the contents of said second service input buffer as a second transmission burst (see Hanks, col.11 line 40 through col.12 line 57).

Regarding claim 45, the modified Hanks et al. disclose a network operator input buffer (see Hanks, fig.1, element 102).

Regarding claim 46, Hanks et al. disclose a system comprising:  
a service input buffer (see fig.1, element 101) for receiving streaming information from a service provider (see fig.1, element 103-106); and  
a digital transmitter for transmitting said streaming information as broadcast transmission bursts to a remote mobile terminal at a higher bit rate than the rate at which said streaming information is received from said service provider (see col.11 line 40 through col.12 line 57).

Hanko et al. fail to disclose broadcast streaming information is transmitted in synchronization with a powering-up of the remote mobile terminal.

Marko et al. disclose broadcast streaming information is transmitted in synchronization with a powering-up of the remote mobile terminal (see col.8 lines 35-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hanko et al. with the above teaching of Marko et al. in order to provide a wake-up features to automatically tune to a particular broadcast channel during the scheduled time forward a selected message of file to receive.

Regarding claim 51, the modified Hanko et al. disclose said digital broadcasting transmitter is responsive to said service input buffer such that if the amount of data stored in said service input buffer meets a predetermined amount said digital broadcast transmitter transmits said data stored in said service input buffer as a transmission burst (see Marko, col.2 lines 14-34, col.4 lines 4-29).

Regarding claim 52, the modified Hanko et al. disclose the streaming information comprises multimedia content (see Marko, col.4 lines 4-15).

Claims 12-15, 41-42 and 47-50, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanko et al. in view of Marko et al. (US Patent 6,876,835) further in view of Fell et al. (US Patent 6,674,994).



Regarding claims 12-13, 41 and 47-48, Hanks et al. fail to disclose the buffered data is encapsulated using a multi-protocol encapsulator to form encapsulated data standard EN 301192.

Fell et al. disclose the buffered data is encapsulated using a multi-protocol encapsulator to form encapsulated data standard EN 301192 (see col.3 lines 60-65). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of the modified Hanks et al. with the above teaching of Fell et al. in order to provide Multi Protocol Encapsulation standards.

Regarding claim 14, the modified Hanks et al. disclose obtaining said transmission burst from said receiver input buffer; and stripping encapsulation from said transmission burst to form received data (see Fell, col.3 lines 60-65, decapsulation is inherent in a receiver to decapsulate from an encapsulation data transmission).

Regarding claim 15, the modified Hanks et al. disclose the step of sending said received data to an application processor for conversion to an information data stream (see Marko, col.5 line 24 through col.6 line 7).

Regarding claim 42, the modified Hanks et al. fail to disclose said stream filter comprises an Internet protocol (IP) filter.

Fell et al. disclose stream filter comprises an Internet protocol (IP) filter (see col.3 lines 60-65). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of the modified Hanks et al. with the above teaching of Fell et al. in order to provide IP datacasting offers the advantage of digital content that may be distributed over a mobile broadcast.

Regarding claim 49, the modified Hanko et al. disclose a multiplexer (see Marko, col.3 lines 55-60).

Regarding claim 50, the modified Hanko et al. disclose a network operator input buffer (see Marko, col.2 lines 14-16).

***Allowable Subject Matter***

Claims 19-20 and 22-30 are allowed.

Claims 7, 11, 35 and 39, objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

Regarding independent claim 19, the prior art fails to teach "said predetermined-determined power-up time occurs at the setting of a flag indication an almost empty byte count in said receiver input buffer", as cited in the claim.

Regarding dependent claim 7, the prior art fails to teach "wherein said power-down flag is set in response to said receiver input buffer reaching a specified maximum byte count", as cited in the claim.

Regarding dependent claim 11, the prior art fails to teach "wherein said power-up flag is set in response to said receiver input buffer reaching a specified byte count", as cited in the claim.

Regarding dependent claim 35, the prior art fails to teach "wherein the transmission of the transmission burst is synchronized with the powering-up of the

Art Unit: 2618

digital broadcast receiver based on a flag indicating an almost full byte count", as cited in the claim.

Regarding dependent claim 39, the prior art fails to teach "wherein the predetermined-determined powered-up time occurs at the setting of a flag indicating an almost empty byte count in said receiver input buffer", as cited in the claim.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is 571-272-7883.

Art Unit: 2618

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



September 11, 2007